

Title (en)
FOCUSING WATERPROOF FLASHLIGHT

Title (de)
WASSERDICHTER HANDLEUCHTE MIT FOKUSSIERUNG

Title (fr)
LAMPE DE POCHE ETANCHE A MISE AU POINT

Publication
EP 1307686 A4 20050810 (EN)

Application
EP 01987860 A 20010809

Priority
• IB 0102801 W 20010809
• US 22482000 P 20000811

Abstract (en)
[origin: US2002018343A1] An underwater flashlight has an adjustable focusing beam and a waterproof battery pack which can be removably changed underwater. The flashlight includes a watertight housing having a slidably mounted lamp therein slidable by an external sliding focus member having a permanent magnet mounted therein. The permanent magnet moves an internal sliding focusing member also having a magnet therein coacting with the external magnet. The slidable inside focusing member is connected by a link to the lamp for moving the lamp into and out of a reflector when focusing the lamp. An on/off switch is attached to the slidable outside focusing member and has a magnet mounted therein for actuating a pickup coil attached to the slidable inside focusing member. The flashlight includes a waterproof attachable battery pack which has a magnetic switch therein actuated by a magnet in the watertight housing of the flashlight so that the batteries do not provide an electrical connection until the contacts are brought together.

IPC 1-7
F21L 4/00; **F21V 14/02**

IPC 8 full level
F21L 4/00 (2006.01); **F21V 14/00** (2006.01); **F21V 14/02** (2006.01); **F21V 19/02** (2006.01); **F21V 23/04** (2006.01); **F21Y 101/02** (2006.01)

CPC (source: EP US)
F21L 2/00 (2013.01 - EP US); **F21L 4/00** (2013.01 - EP US); **F21V 14/025** (2013.01 - EP US); **F21V 19/02** (2013.01 - EP US); **F21V 23/0414** (2013.01 - EP US)

Citation (search report)
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• [Y] GB 2223356 A 19900404 - TUNG FAT IND LTD [HK]
• [A] US 5465196 A 19951107 - HASENBERG MARK J [US], et al
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• See references of WO 0233310A2

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CN102568886A

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AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

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US 2002018343 A1 20020214; **US 6547414 B2 20030415**; AT E384910 T1 20080215; AU 3203902 A 20020429; CA 2417582 A1 20020425; CN 100436933 C 20081126; CN 1636119 A 20050706; DE 60132597 D1 20080313; DE 60132597 T2 20090129; EP 1307686 A2 20030507; EP 1307686 A4 20050810; EP 1307686 B1 20080123; JP 2004511893 A 20040415; WO 0233310 A2 20020425; WO 0233310 A3 20021128

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